

1097904
SEQUENCE LISTING

<110> Ribaud and Shields

<120> B2 Microglobulin Fusion Proteins and High Affinity Variants

<130> 67022

<140> 10/727,000

<141> 2003-12-02

<150> 09/719,243

<151> 2001-03-19

<150> PCT/US99/12309

<151> 1999-06-03

<150> 60/088,813

<151> 1998-06-10

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1

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Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
 1             5             10             15
Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
          20             25             30
His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
      35             40             45
Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu
      50             55             60
Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
 65             70             75             80
Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
          85             90             95
Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile
      100             105             110
Val Lys Trp Asp Arg Asp Met
      115
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<210> 2

<211> 339

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: fusion protein

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<400> 2

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu
 1 5 10 15
 Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val
 20 25 30
 Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu
 35 40 45
 Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr
 50 55 60
 Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile
 65 70 75 80
 Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr
 85 90 95
 Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala
 100 105 110
 Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn
 115 120 125
 Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro
 130 135 140
 Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp
 145 150 155 160
 Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser
 165 170 175
 Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val
 180 185 190
 Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu
 195 200 205
 Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr
 210 215 220
 Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ala Ser
 225 230 235 240
 Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
 245 250 255
 Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
 260 265 270
 Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
 275 280 285
 Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
 290 295 300
 Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
 305 310 315 320
 Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
 325 330 335

Arg Asp Met

<210> 3
 <211> 358
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: fusion protein

<400> 3
 Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
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 Gly Leu Glu Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr
 20 25 30
 Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser
 35 40 45
 Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu
 50 55 60
 His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu
 65 70 75 80
 Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn
 85 90 95
 Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys
 100 105 110
 Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser
 115 120 125
 Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val
 130 135 140
 Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His
 145 150 155 160
 Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu
 165 170 175
 Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe
 180 185 190
 Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His
 195 200 205
 Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser
 210 215 220
 Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp
 225 230 235 240
 Ala Ser Thr Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly
 245 250 255
 Gly Ala Ser Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His

260					265					270				
Pro	Ala	Glu	Asn	Gly	Lys	Ser	Asn	Phe	Leu	Asn	Cys	Tyr	Val	
		275					280					285		
Phe	His	Pro	Ser	Asp	Ile	Glu	Val	Asp	Leu	Leu	Lys	Asn	Gly	
		290					295					300		
Ile	Glu	Lys	Val	Glu	His	Ser	Asp	Leu	Ser	Phe	Ser	Lys	Asp	
Phe	Tyr	Leu	Leu	Tyr	Tyr	Thr	Glu	Phe	Thr	Pro	Thr	Glu	Lys	
Tyr	Ala	Cys	Arg	Val	Asn	His	Val	Thr	Leu	Ser	Gln	Pro	Lys	
Lys	Trp	Asp	Arg	Asp	Met									
		355												

taagtctgaa tgctccactt tttc

24

<210> 8
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer

<400> 8
 aggggtaccat ggtttccgtg gagacgcaag c

31

<210> 9
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: reverse primer

<400> 9
 tcgaattcat gatgctagcc caatacgttt gaggagatgg

40

<210> 10
 <211> 99
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Modified hB2m
 S55V

<400> 10
 Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
 1 5 10 15
 Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
 20 25 30
 Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
 35 40 45
 Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu
 50 55 60
 Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
 65 70 75 80
 Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
 85 90 95
 Arg Asp Met

<210> 11
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: linker that
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can be used in fusion proteins

<400> 11

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15

<210> 12

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: linker that
can be used in fusion proteins

<400> 12

Gly Gly Gly Ala Ser
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<210> 13

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 13

Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Ala Ala
1 5 10 15

Gln Pro Ala Met Ala
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<210> 14

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 14

Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser
1 5 10 15

Phe Ala Ser Thr
20

<210> 15

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: c-myc tag

<400> 15

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn

1

5

<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: ornithine
decarboxylase 309-317

<400> 16
Ser Ser Glu Gln Thr Phe Met Tyr Tyr
1 5

<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HTLV TAX 11-19

<400> 17
Leu Leu Phe Gly Tyr Pro Val Tyr Val
1 5

<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: HIV gag 77-85

<400> 18
Ser Leu Tyr Asn Thr Val Ala Thr Leu
1 5

<210> 19
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: pn2a.A3

<400> 19
Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys
1 5 10

<210> 20
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: influenza NP
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<400> 20

Ile Leu Arg Gly Ser Val Ala His Lys
1 5